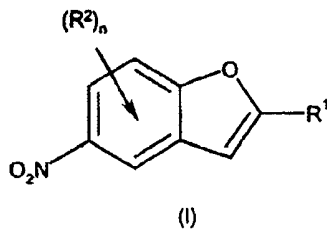


WHAT IS CLAIMED IS:

1. Compounds of the formula (I),



in which

R^1 is hydrogen or C_1 - C_{12} -alkyl, and

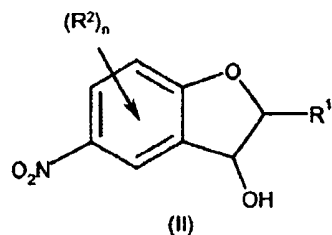
R^2 are in each case independently of one another: fluorine, chlorine, bromine, iodine, C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy, hydroxyl, NR^3R^4 or $CONR^3R^4$, where R^3 and R^4 are each, independently of one another, hydrogen or C_1 - C_{12} -alkyl, or NR^3R^4 as a whole is a cyclic amino radical having 4 to 12 carbon atoms, COO -(C_1 - C_{12} -alkyl), - COO (C_4 - C_{24} -aryl), - COO (C_5 - C_{25} -arylalkyl), CO (C_1 - C_{12} -alkyl), CO (C_4 - C_{24} -aryl) or C_1 - C_{12} -fluoroalkyl and

n is zero, one, two or three, or

in the case where n is two or three it is possible for two adjacent R^2 substituents to be part of a fused ring system which in turn may optionally be substituted by the radicals mentioned above for R^2 ,

with the proviso of 2-(n -butyl)-5-nitrobenzofuran being excluded.

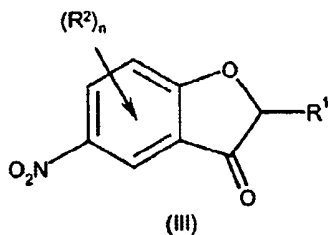
2. Compounds of the formula (II),



- 5 in which R^1 , R^2 and n have the meanings specified under formula (I) in Claim 1.

3. 2-(n-Butyl)-5-nitro-2,3-dihydrobenzofuran-3-ol.

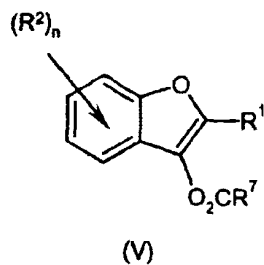
- 10 4. Compounds of the formula (III),



- 15 in which R^2 and n have the meaning specified under formula (I) in claim 1, and R^1 is n-butyl.

5. 2-(n-Butyl)-5-nitro-3(2H)-benzofuranone.

6. Compounds of the formula (V),



in which

- 5 R^2 and n have the meaning specified under formula (I) in Claim 1,

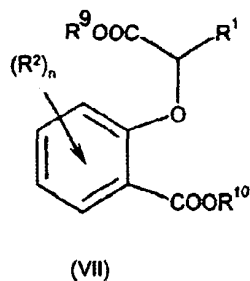
R^1 is n-butyl and

R^7 is C_1 - C_{12} -alkyl, C_5 - C_{25} -arylalkyl, C_4 - C_{24} -aryl or C_1 - C_{12} -fluoroalkyl.

10

7. 3-Acetoxy-2-(n-butyl)-benzofuran.

8. Compounds of the formula (VII),

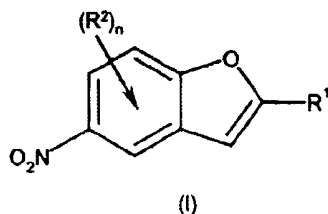


15

in which R^2 and n have the meaning specified under formula (I) in Claim 1, R^1 is n-butyl and R^9 and R^{10} are independently of one another C_1 - C_{12} -alkyl, C_5 - C_{25} -arylalkyl or C_4 - C_{24} -aryl, and furthermore not more than one R^9 or R^{10} radical is hydrogen.

20

9. Compounds selected from the group consisting of methyl 2-(1-methoxycarbonylpentoxy)benzoate, ethyl 2-(1-methoxycarbonylpentoxy)benzoate, ethyl 2-(1-ethoxycarbonylpentoxy)benzoate, methyl 2-(1-ethoxycarbonylpentoxy)benzoate, 2-(1-methoxycarbonylpentoxy)-benzoic acid, 2-(1-ethoxycarbonylpentoxy)benzoic acid, ethyl 2-(1-carboxypentoxy)benzoate and methyl 2-(1-carboxypentoxy)benzoate.
10. Process for preparing compounds of the formula (I),



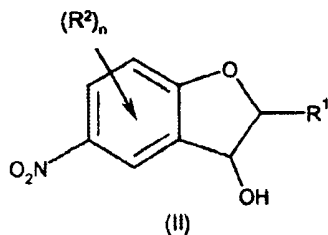
in which

R^1 is hydrogen or C_1 - C_{12} -alkyl, and R^2 are in each case independently: fluorine, chlorine, bromine, iodine, C_1 - C_{12} -alkyl, C_1 - C_{12} -alkoxy, hydroxyl, NR^3R^4 or $CONR^3R^4$, where R^3 and R^4 are each, independently of one another, hydrogen or C_1 - C_{12} -alkyl, or NR^3R^4 as a whole is a cyclic amino radical having 4 to 12 carbon atoms, COO -(C_1 - C_{12} -alkyl), $-COO$ (C_4 - C_{24} -aryl), $-COO$ (C_5 - C_{25} -arylalkyl), CO (C_1 - C_{12} -alkyl), CO (C_4 - C_{24} -aryl) or C_1 - C_{12} -fluoroalkyl and

n is zero, one, two or three, or in the case where n is two or three it is possible for two adjacent R^2 substituents to be part of a fused ring system which in turn may optionally be substituted by the radicals mentioned above for R^2 ,

comprising converting by dehydration

compounds of the formula (II)



in which R^1 , R^2 and n have the meaning under formula (I),

into compounds of the formula (I).

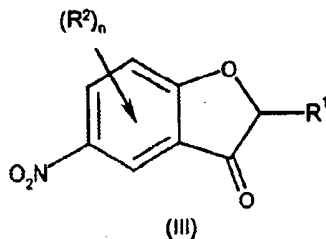
10

11. Process according to Claim 10, characterized in that 2-(n-butyl)-5-nitrobenzofuran is prepared.

15

12. Process according to Claim 10, characterized in that protic acids or hydroxides are employed for the dehydration.

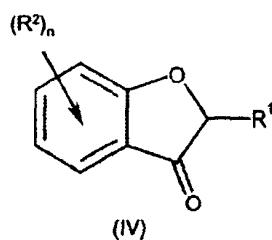
13. Process according to Claim 10, characterized in that the compounds of the formula (II) are obtained by reducing compounds of the formula (III)



in which R^1 , R^2 and n have the meaning specified under formula (I) in Claim 10.

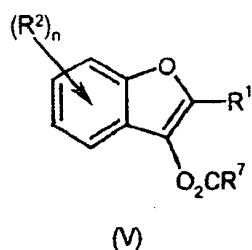
14. Process according to Claim 13, characterized in that the compounds of the formula (III) are reduced by aluminium-hydrogen or boron-hydrogen compounds.

15. Process according to Claim 13, characterized in that the compounds of the formula (III) are obtained by nitrating compounds of the formula (IV)



in which R^1 , R^2 and n have the meanings specified under formula (I).

16. Process according to Claim 15, characterized in that the compounds of the formula (IV) are obtained by hydrolysing compounds of the formula (V)

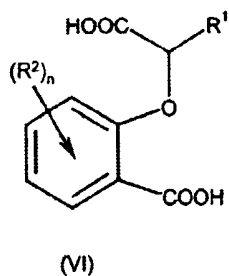


in which

R^1 , R^2 and n have the meaning specified under formula (I) in Claim 10, and

R^7 is C_1 - C_{12} -alkyl, C_5 - C_{25} -arylalkyl, C_4 - C_{24} -aryl or C_1 - C_{12} -fluoroalkyl.

17. Process according to Claim 16, characterized in that the compounds of the formula (V) are obtained by cyclizing decarboxylation of compounds of the formula (VI),



in which R^1 , R^2 and n have the meaning specified under formula (I) in Claim 10,

in the presence of at least one compound of the formula (RIII)

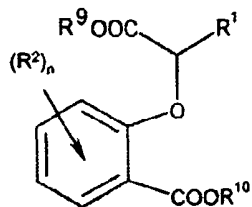


in which

R^7 has the meaning specified under formula (V), and

R^8 is $-O_2CR^7$, hydroxyl or OM , where M is an alkaline earth metal or alkali metal.

18. Process according to Claim 17, characterized in that the compounds of the formula (VI) are obtained by hydrolysing compounds of the formula (VII)



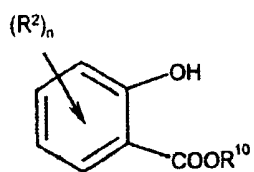
(VII)

in which

5 R^1 , R^2 and n have the meaning specified under formula (I), and

R^9 and R^{10} are each independently of one another hydrogen, $\text{C}_1\text{-C}_{12}\text{-alkyl}$,
 $\text{C}_5\text{-C}_{25}\text{-arylalkyl}$ or $\text{C}_4\text{-C}_{24}\text{-aryl}$.

10 19. Process according to Claim 18, characterized in that the compounds of the
 formula (VII) are obtained by reacting compounds of the formula (VIII)



(VIII)

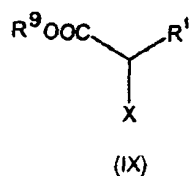
15 in which

R^2 and n have the meaning specified under formula (I) in Claim 10 and

R^{10} has the meaning specified under formula (VII),

20

with compounds of the formula (IX)



in which

5

R^1 has the meanings specified under formula (I) in Claim 10, and

R^9 has the meaning specified under formula (VII), and

10 X is chlorine, bromine, iodine or $\text{R}^{11}\text{SO}_3^-$ where

R^{11} is $\text{C}_1\text{-C}_{12}$ -alkyl, $\text{C}_4\text{-C}_{24}$ -aryl, $\text{C}_5\text{-C}_{25}$ -arylalkyl or $\text{C}_1\text{-C}_{12}$ -fluoroalkyl.

20. Process according to Claim 17, characterized in that the compounds of the
15 formula (VI) are prepared by reacting compounds of the formula (VIII)
with compounds of the formula (IX) in a one-pot reaction with hydrolysis
of the ester functions taking place simultaneously.

21. Process for preparing compounds of the formula (II), characterized in that
20 it comprises reaction steps according to Claim 13.

22. Process for preparing compounds of the formula (III), characterized in that
it comprises reaction steps according to Claim 15.

25 23. A process for producing medicaments and physiologically active
substances comprising providing the compounds of Claim 1.

24. A process for producing medicaments and physiologically active substances comprising providing therefor the compounds of Claim 10.
25. A process for treating cardiac arrhythmias comprising administering medicaments and physiologically active substances as recited in Claim 23 .
- 5
- ²⁴
~~25.~~ The process according to Claim 25, characterized in that the physiologically active substance is dronedarone.

all
126